

## **REMARKS**

Claims 1-3, 8, 11-14, and 19 stand rejected under 35 U.S.C. §102(b) as being anticipated by Eguchi. Applicant has amended independent claims 1 and 12 to more clearly define, among other things, that a generalized FIR filter includes at least one generalized (orthonormal) basis function. This amendment finds support in the specification as filed (for example, page 3, lines 3-12; page 9, lines 5-15 and 27-28).

Applicant respectfully traverses the rejection as applied to amended claims 1 and 12 and dependent claims 2-3, 8, 11, 13-14, and 19 for at least the reason that Eguchi neither teaches nor suggests at least a generalized FIR filter including at least one generalized (orthonormal) basis function. Instead, the FIR filter in Eguchi appears to be a tapped delay function. Applicant has recognized that such tapped delay functions in an FIR filter result in an undesired amount of complexity, resulting in significantly greater performance requirements. On the other hand, by providing the claimed generalized FIR filter including at least one generalized (orthonormal) basis function, better active noise control can be provided given the same complexity.

Additionally, Applicant provides new dependent claims 28-29 (depending from independent claim 1) and claims 30-31 (depending from independent claim 12), which further define, among other things, that at least one generalized (orthonormal) basis function is selected based on dynamics of sound propagation (claims 28 and 30), and further that the dynamics of sound propagation includes prior knowledge of sound dynamics (claims 29 and

31). As Eguchi clearly fails to teach or suggest at least these features, Applicant respectfully submits that these claims are allowable over Eguchi for at least these additional reasons.

Accordingly, Applicant respectfully submits that claims 1-3, 8, 11-14, 19, and new claims 28-31 are allowable over the references of record, including Eguchi. Applicant thus requests reconsideration and withdrawal of the rejection.

Claims 4, 5, 7, 15, 16, and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eguchi in view of Heuberger. Applicant respectfully traverses the rejection for at least the reasons stated above regarding Eguchi, and for at least the additional reason that one of ordinary skill in the art would not find it obvious, absent impermissible hindsight, to modify the FIR filter of Eguchi according to Heuberger to suggest the inventions defined in claims 4, 5, 7, 15-16, and 18.

While reference Heuberger does appear to teach orthonormal basis functions, it does not suggest a way to combine such orthonormal basis functions with an FIR filter for use with an active noise control. For example, Applicant believes that one of ordinary skill in the art having reference to Eguchi and Heuberger would not appreciate the additional consideration needed to parameterize orthonormal basis functions to make them applicable for an FIR in an active noise control apparatus or method, absent impermissible hindsight. On the other hand, Applicant has discovered that using information such as prior knowledge of sound dynamics to select such orthonormal basis functions provides a way to use these functions in an active noise control apparatus and/or method. The Office Action's stated reason for combining Heuberger and Eguchi – to generate optimal filter components for

Eguchi's FIR filter – would not suggest the claimed invention to an artisan absent, at least, a consideration of some reason to apply such orthonormal basis functions to an FIR filter in an active noise control apparatus or method.

Accordingly, Applicant respectfully submits that claims 4, 5, 7, 15-16, and 18 are allowable over the references of record, including Eguchi and Heuberger. Applicant thus requests reconsideration and withdrawal of the rejection.

The Examiner has indicated that claims 6, 17, 9-10, and 20-21 would be allowable if rewritten in independent form, including all limitations of the base claim and any intervening claims, and that claims 22-27 are allowed. Applicant acknowledges and appreciates this statement. Claims 6, 9, 17, and 20 have been rewritten in independent form. Applicant thus submits that these claims and their dependent claims are now allowable.

For at least the above reasons, Applicant submits that this case is in condition for allowance, which is respectfully requested. The Examiner is invited to contact Applicant's attorney at the number list below if an interview would expedite prosecution.

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